

PATENT APPLICATION  
USSN 10/591,198  
Attorney Docket No.: VMP-40009

#### REMARKS

The Primary Examiner's rejection of claims 1-7 under 35 U.S.C. § 103(a) for being unpatentable over SU 1,196,096 or over the Anderko et al. U.S. Patent No. 3,764,575 in view of the Melling et al. U.S. Patent No. 5,573,055, as these rejections may be attempted to be applied to the amended claims, are respectfully traversed.

In support of the traverses, applicant first points out that claim 1 has been amended to additionally call for the addition of between approximately 1 to 10 % by weight of a parting agent comprising graphite.

The Examiner has stated that "it is also conventional to add a parting agent to a foundry mixture to facilitate core removal process." However, the Examiner has not cited any prior art to support this contention. Further, the Examiner has not cited any art or evidence teaching adding "between approximately 1 to 10 % of a parting agent comprising graphite" as called for in the amended claim 1.

See Ex parte Leavell, 212 USPQ 763 where Mr. Williamowsky speaking for the Patent and Trademark Board of Appeals stated:

"The legal conclusion of obviousness must be bottomed on a solid evidentiary base."

Further, amended claim 1 now calls for compressing as well as sintering.

The SU reference does not sinter at 200 degrees C. The SU reference does not teach sintering and compressing at all. Also the SU teaches heat/temperature treatment at 300 degrees C, although it refers to conventional heat/temperature treatment at 700 degrees C. Further the SU does not teach applicant's phosphate fraction of between 0.5 and 10 % by wt. of the whole mixture.

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Anderko et al. U.S. Patent No.3,764,575 does not teach applicant's compressing and sintering temperature of 200 degrees C, although it teaches curing at 100-150 degrees C, which is not sintering and which does not include compression as called for in amended claim 1. Further, Anderko does not teach a heat treatment at under 700 degrees (it teaches 450-600 degrees C). It also does not teach adding inorganic phosphates to the mixture or in applicant's faction of between 0.5-10% by weight of the mixture.

Melling et al. does not teach applicant's step of sintering, compression and heat treatment. Further, Melling et al. does not teach a sintering temperature of approximately 200 degrees C. Melling teaches heating at 50 to 90 degrees C, and if desired a bit later at 100 to 120 degrees C. Further Melling teaches heat treatment in excess of 1000 degrees C, not under 700 degrees C. Further, while teaching a binder fraction percentage of 0.5-25%, it does not teach applicant's fraction percentage of 0.5-10%.

Applicant has still further amended claim 1 to state that the process is carried out without being subjected to outgassing, namely the toxic gases generated at temperatures above 700 or 730 degrees C. Thus, applicant's process prevents the generation of toxic gases while still obtaining the desired hardening.

Applicants water-soluble salt cores are made with the release of less toxic gases than prior art cores as a result of the inorganic phosphate concentration claimed, the sintering and compression claimed and the subsequent heat treatment under 700 degrees C claimed.

In summary, applicant submits that the subject matter now set forth in amended claim 1 is not disclosed or suggested by the prior art cited. Nor does the prior art obtain the advantages of applicant's process, namely adequate hardening without the generation

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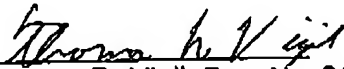
of toxic gases. Further, applicant submits that the specification and claims are now in condition for allowance and an early and favourable action to that end is requested.

Respectfully Submitted,

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